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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/639,554	08/12/2003	S. Allen Face III	VBFACE06	5998
7590	09/22/2004		EXAMINER	
Peter J. Van Bergen 402 West Duke of Gloucester St Williamsburg, VA 23185			LE, JOHN H	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/639,554	Applicant(s) FACE, S. ALLEN	
	Examiner John H Le	Art Unit 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 12-18, 20, 23-26, 28, 32 and 33 is/are rejected.
- 7) ☒ Claim(s) 7, 9-11, 19, 21, 22, 27 and 29-31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08/12/03</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. Correction is required. See 37CFR 1.72.
2. The abstract of the disclosure is objected to because of the form and legal phraseology often used in patent claims, such as "means" (line 4) should be avoided.
3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification fails to describe "a linear distance sensor" as cited in line 30 of claim 25.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8, 12-17, 20, 23-25, 28, and 32-33 are rejected under 35

U.S.C. 102(b) as being anticipated by Face (USP 5,535,143).

Regarding claim 1 and 14, Face discloses a system for collecting measurements for use by a surface profiling processing scheme (Fig. 1), said system comprising: a movable platform (Fig. 1); an odometer (8) coupled to said movable platform for measuring distance that said movable platform traverses during a measurement run on a surface wherein said measurement run is defined by starting and stopping positions on the surface that are spaced apart from one another (e.g. Col. 3, lines 10-12); first means mounted to said movable platform for generating a measurement of inclination of the surface where said movable platform is positioned when said movable platform is stationary thereon (e.g. Col. 8, lines 45-56); second means mounted to said movable platform for generating measurements of curvature of the surface as said movable platform traverses the surface (e.g. Col. 3, lines 7-23, Col. 7, lines 30-55); third means mounted on said movable platform and coupled to said odometer for monitoring said distance that said movable platform traverses during said measurement run and for generating a signal each time said movable platform traverses a predetermined amount distance during said measurement run, wherein said signal serves as an indication to stop said movable platform during said measurement run (e.g. Col. 3, line 64-Col. 4, line 10, Col. 6, lines 38-42, Col. 10, lines 25-32); and fourth means (computer) coupled to said first means and said second means for collecting said measurements of curvature while said movable platform traverses the surface during said measurement run (e.g. Col. 3, lines 19-23, Col. 7, lines 36-55), and said measurement of inclination at said starting position (e.g. Col. 8, lines 45-56), said stopping position, and each time said

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movable platform is stopped during said measurement run following the generation of said signal (Col.10, lines 28-32).

Regarding claims 2 and 15, Face discloses said movable platform comprises: a frame (32, 42); at least four supports (wheels 3, 4, 5, 44, 46) coupled to said frame and contacting the surface wherein said frame is supported above the surface; a first three of said at least four supports being arranged in a linear alignment that defines a direction of travel for said frame (wheels 3, 5, 4) (Figs.6-8), and a remainder of said at least four supports being spaced apart from said linear alignment (Fig.6); said first three defined by a front support, a rear support and a center support centered between said front support and said rear support (Fig.6); said center support (wheel 5) being a floating support capable of substantially vertical movement (Col.2, lines 1-6, Col.10, lines 48-54); and at least one of said front support, said rear support and said center support being a wheel configured to roll in said direction of travel (Col.11, lines 10-21).

Regarding claim 25, Face discloses a system for collecting measurements for use by a surface profiling processing scheme comprising: a frame (32, 42); at least four supports (wheels 3, 4, 5, 44, 46) coupled to said frame and contacting the surface wherein said frame is supported above the surface (Fig.6); a first three of said at least four supports being arranged in a linear alignment that defines a direction of travel for said frame (wheels 3, 5, 4) (Figs.6-8), and a remainder of said at least four supports being spaced apart from said linear alignment (Fig.6); said first three defined by a front support, a rear support and a center support centered between said front support and said rear support (Fig.6); said center support (wheel 5) being a floating support capable

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of substantially vertical movement (Col.2, lines 1-6, Col.10, lines 48-54); and at least one of said front support, said rear support and said center support being a wheel configured to roll in said direction of travel (Col.11, lines 10-21); an odometer (8) coupled to said movable platform for measuring distance that said movable platform traverses during a measurement run on a surface wherein said measurement run is defined by starting and stopping positions on the surface that are spaced apart from one another (e.g. Col.3, lines 10-12); an inclinometer mounted to said movable platform for generating a measurement of inclination of the surface where said movable platform is positioned when said movable platform is stationary thereon (e.g. Col.8, lines 45-56); a linear distance sensor mounted to said movable platform for generating measurements of curvature of the surface as said movable platform traverses the surface (e.g. Col.3, lines 7-23, Col.4, lines 4-10, Col.7, lines 30-55); a distance monitor mounted on said movable platform and coupled to said odometer for monitoring said distance that said movable platform traverses during said measurement run and for generating a signal each time said movable platform traverses a predetermined amount distance during said measurement run, wherein said signal serves as an indication to stop said movable platform during said measurement run (e.g. Col.3, line 64-Col.4, line 10, Col.6, lines 38-42, Col.10, lines 25-32); and data collector (computer) coupled to said linear distance sensor and said distance monitor for collecting said measurements of curvature while said movable platform traverses the surface during said measurement run (e.g. Col.3, lines 19-23, Col.7, lines 36-55), and said measurement of inclination at said starting position (e.g. Col.8, lines 45-56), said stopping position, and each time said movable

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platform is stopped during said measurement run following the generation of said signal (Col.10, lines 28-32).

Regarding claim 3, Face discloses said odometer is coupled to one of said front support, said rear support and said center support that is said wheel (Col.11, lines 10-21).

Regarding claims 4 and 16, Face discloses said first means is an inclinometer mounted on said frame, said inclinometer having an axis of sensitivity that is aligned parallel to said direction of travel (e.g. Col.8, lines 45-50, Col.10, lines 43-47, Col.11, lines 4-9).

Regarding claims 5 and 17, Face discloses said second means is a linear position transducer (7) coupled to said center support (wheel 5) for generating said measurements of curvature by measuring said substantially vertical movement of said center support as said movable platform traverses said surface during said measurement run (Col.3, lines 7-23).

Regarding claims 8, 20, and 28, Face discloses all of said at least four supports are wheels (Fig.6, wheels 3, 4, 5, 44, 46).

Regarding claims 12, 23, and 32, Face discloses fifth means coupled to said fourth means (computer) for processing said measurements of curvature (e.g. Col.3, lines 19-23, Col.7, lines 36-55) and each said measurement of inclination (e.g. Col.8, lines 45-56) in accordance with a surface profiling scheme to generate surface profile measurements.

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Regarding claims 13, 24, and 33, Face discloses sixth means for encrypting (computer which is programmed to interpret the input signal) said surface profile measurements (e.g. Col.3, lines 13-23).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Face (USP 5,535,143) in view of Graves (USP 4,403,419).

Regarding claims 6, 18, and 26, Face fails to disclose means to pull said movable platform during said measurement run.

Graves discloses means to pull said movable platform during said measurement run (Col.10, lines 6-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include means to pull said movable platform during said measurement run as taught by Graves in a system for collecting measurements for use by a surface profiling processing scheme of Face for the purpose of providing a surface profile recorder which is small enough to be hand-held and is therefore extremely portable (Graves, Col.2, lines 3-5).

Allowable Subject Matter

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8. Claims 7, 9, 10, 11, 19, 21, 22, 27, 29, 30, 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John H Le whose telephone number is 571-272-2275. The examiner can normally be reached on 8:00 - 4:30.

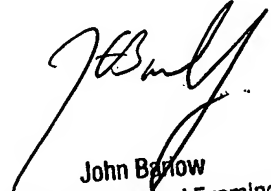
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John H. Le

Patent Examiner-Group 2863

September 10, 2004


John Barlow
Supervisory Patent Examiner
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